

Keynote Speech

External Balances, Capital Flows, and Monetary and Exchange Rate Policies in Central and Eastern Europe

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1 Introduction

The theme of this session is broad enough to cover almost any topic in international macroeconomics of central and eastern European economies. This makes it impossible even to attempt to summarise the recent literature and policy developments in the area. So rather than embarking on a *tour d'horizon*, this contribution will take a closer look at only two sectors on the horizon: recent trends in global financial markets, and policy challenges arising from increased capital flows to central and eastern Europe.

As it turns out, increased capital flows are currently challenging policy makers in emerging market economies worldwide. A combination of strong global growth, low inflation and historically low interest rates has led to a significant increase in financial flows towards emerging markets. Although important, low returns on financial assets in industrial countries and ample liquidity in global financial markets are not the only forces underlying this shift. Many developing countries have pursued sound macroeconomic policies and implemented major structural reforms over the past decade, attracting large direct and portfolio investments in the process. Moreover, institutional

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investors from industrial countries seem to be changing their investment behaviour, with pension funds increasingly diversifying their assets towards emerging markets on a more permanent basis. These developments suggest that large capital flows might become a permanent feature of the policy environment in countries such as Croatia. The accession to the European Union and the requirement to liberalise capital flows – not least with respect to non-residents' investment in the real estate sector – further highlight the need for a thorough analysis of issues in this area.

Against this background, Section 2 traces in more detail the return of private capital flows to the emerging markets since 2000, and discusses some findings on the determinants and sustainability of recent capital inflows. Section 3 turns to challenges that capital flows pose for macroeconomic policies in EU accession countries. It discusses possible macroeconomic effects of capital flows in the run-up to the European Monetary Union (EMU) and examines different options for monetary and exchange rate policies. It also looks at empirical evidence on capital flows to the region and the countries in southern Europe that already joined EMU. It is shown that countries in central and eastern Europe have already been exposed to sizeable capital flows over the past decade without experiencing major instability. It is further argued that conditions prevailing currently in most accession countries are perhaps less conducive to speculative inflows than was the case prior to the accession of Greece, Italy, Ireland, Portugal and Spain. Inflation rates and interest rates have, with few exceptions, converged significantly during the past few years. Similarly, country risk premia have also come down markedly, so the remaining scope for volatile capital flows might be smaller than in the past.

2 Recent Trends in Global Capital Markets

Net private capital flows to the emerging market economies were estimated at about \$174 billion in 2003 (Table 1), the highest level recorded since the peak of nearly \$200 billion in 1996.¹ Both portfolio flows (equities and bonds) and other flows (commercial bank and other loans) were significantly higher than in 2002. Foreign direct investment (FDI), however, continued to decline, its share in total flows falling below 50% from over 70% on average during the 1990s. Asian economies attracted the bulk of the inflows last year, with China alone absorbing 60% of FDI in all emerging markets (close to 90%

¹ *This section updates and extends parts of Chapter 3 of BIS (2004).*

of FDI flows to Asia). Brazil, China, India and Korea were important destinations for portfolio inflows, while countries in Latin America and central and eastern Europe (CEE) benefited from resumption in loan flows.

Recent data confirm that private capital flows to the emerging markets have remained strong in 2004. Gross issuance of emerging market bonds in international markets reached \$330 billion by mid-October, \$11 billion higher than for the whole of 2003. There has also been a revival in FDI inflows, which are projected to increase by about 10% this year after several years of decline, according to the latest *World Economic Outlook* (IMF, 2004). Central and eastern European countries have continued to attract large commercial bank inflows.

A notable recent development in international bond markets has been increased issuance by debtors with sub-investment grade ratings, including corporations, financial institutions and local governments from Russia, Turkey and Ukraine, and governments of many central and south American countries. This development reflects favourable financing conditions in global capital markets on the one hand, and large current account surpluses in many oil- and commodity-exporting countries on the other. The EMBI Global index has narrowed by 170 basis points over the past six months, approaching in early November the record low spreads of 370 points observed in January 2004. The compression of spreads was particularly marked for Brazilian, Czech, Hungarian, Russian and Turkish bonds. Many sovereign issuers have as a result pre-financed part of their external financing needs for 2005.

In net terms, aggregate flows to the emerging market economies are nevertheless projected to be smaller in 2004 than the previous year. However, this is the case not because of lower gross inflows, but because many emerging economies are using the “window of opportunity” in international financial markets to repay outstanding debt, and thus reduce the overall debt burden before the external financing conditions become more difficult.

Table 1. Net private capital flows to emerging market economies in billions of US dollars				
	Annual average 1990–2000	2001	2002	2003 ¹
Emerging market economies ²				
Total flows	109	72	74	174
Direct investment	79	125	106	81
Portfolio investment ³	45	-11	-28	34
Other private flows ⁴	-15	-42	-4	61
Memo: Current account balance	-30	37	97	133
Change in reserves ⁵	-48	-88	-175	-280
Asia ⁶				
Total flows	35	31	41	111
Direct investment	35	42	47	45
Portfolio investment ³	12	-12	-18	36
Other private flows ⁴	-12	1	12	30
Memo: Current account balance	14	66	99	123
Change in reserves ⁵	-37	-82	-151	-215
Latin America ⁷				
Total flows	62	36	-3	16
Direct investment	34	59	34	24
Portfolio investment ³	30	1	-13	-5
Other private flows ⁴	-2	-24	-24	-1
Memo: Current account balance	-39	-47	-8	9
Change in reserves ⁵	-11	3	0	-27
CEE ⁸				
Total flows	12	5	36	47
Direct investment	10	24	25	12
Portfolio investment ³	3	1	3	3
Other private flows ⁴	-1	-19	8	32
Memo: Current account balance	-5	18	6	1
Excluding Russia	-14	-16	-23	-35
Change in reserves ⁵	0	-9	-24	-38

Notes: ¹Estimates of capital flows based on national balance of payments data and Institute of International Finance. ²Comprises the economies in Asia, Latin America and CEE listed below and South Africa. ³Debt and equity assets and liabilities. ⁴Includes net flows intermediated by commercial banks and other private sector agents (not including financial derivatives). ⁵A negative value indicates an increase in reserves. ⁶China, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan and Thailand. ⁷Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. ⁸Bulgaria, the Czech Republic, Croatia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovakia, Slovenia and Turkey. Sources: Central banks; IMF; Institute of International Finance.

The return of capital inflows over the past few years has been accompanied by a widening of current account surpluses in Asia, a reversal of the large deficits in Latin America, and smaller surpluses in central and eastern Europe (Table 1). In 2003, for instance, the three key emerging market regions all recorded aggregate current account surpluses. One should note, however, that the current account surplus of the CEE region is entirely due to Russia: without Russia, the region is running large and rapidly rising

current account deficits, reaching \$35 billion in 2003 and projected to increase to \$43 billion in the latest Consensus Forecasts (Table 1).

Against this background, it is interesting to note how quickly the external positions of countries in the region have changed. The paper prepared for this session by Buturac, Lovrinčević and Teodorović (2004) studies the change in the structure of merchandise trade in Croatia and six other central and eastern European countries. With the exception of Croatia and Romania, these countries showed until 2001 positive changes in both the structure of merchandise trade and the level of foreign trade balances. While improvements in trade structures have in all likelihood continued, rapid credit expansion has led to a sharp acceleration in imports in the Czech Republic and Hungary since 2001. Hungary, for instance, is expected to record a current account deficit of over 9% of GDP in 2004, compared with a deficit of 3.2% of GDP in 2001.

The concurrent increase in private capital inflows and current account surpluses raises the question of the uses of capital inflows. Investment rates have been on average constant over the past three years. However, there has been a massive increase of \$540 billion in foreign exchange reserves since 2001 (Table 1), suggesting that a significant part of the inflows boosted official reserves.

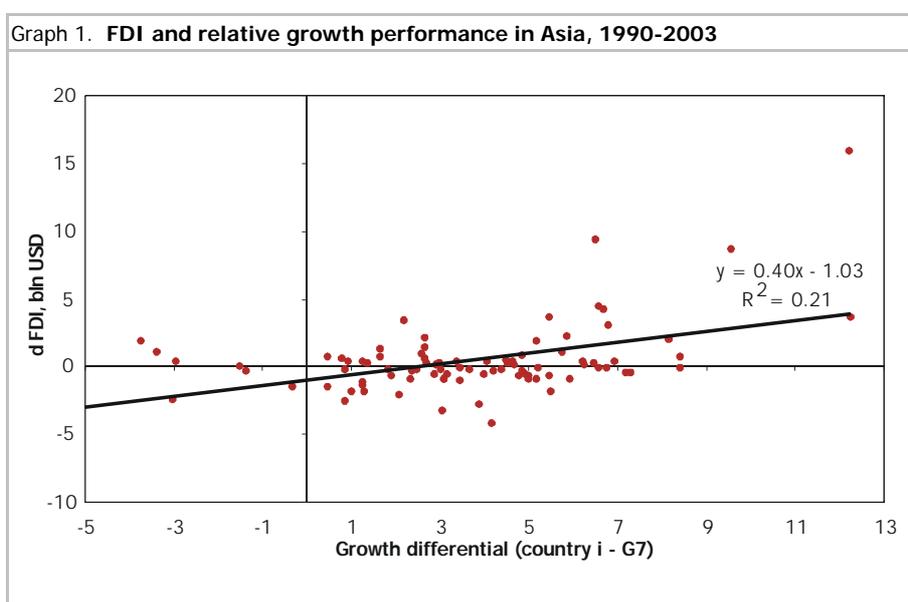
Determinants and Sustainability of Recent Capital Inflows

The return of capital inflows and the compression of bond spreads raise questions about sustainability of these developments. To the extent that they reflect macroeconomic and structural improvements – that is, better fundamentals attracting the flows to the emerging markets (the “pull” factors) – higher inflows and favourable external financing conditions could last. But to the extent that they reflect low industrial country interest rates, buoyant global liquidity and investors’ willingness to undertake riskier investments (the “push” factors), any change in these conditions in the industrial countries could renew concerns about emerging market vulnerabilities.

Other than relative growth performance, which has an effect on all capital inflows, empirical evidence is mixed on the relative importance of “pull” and “push” factors in influencing the recent capital flows to the emerging market economies.

The factors driving **foreign direct investment** seem to be independent of those influencing portfolio and loan flows. For instance, flows of FDI to Latin America

declined between 2001 and 2003 largely as a result of the crisis in Argentina and slower growth in Brazil and Mexico.² In contrast, FDI continued to flow to the Asian emerging economies, especially China, reflecting better growth performance and structural improvements. The regression line in Graph 1 shows, for instance, that a 1 percentage point faster growth of an Asian emerging economy relative to the average for G7 countries increased net FDI inflows to that economy by \$400 million per year during 1990–2003.³



Faster growth and structural improvements also benefited the economies in CEE, but after averaging 3–6% of GDP per year since 1995, cumulative FDI in CEE had reached such high levels that it became difficult to absorb further increases. Moreover, privatisations of state-owned assets, in particular sales of commercial banks to foreign-owned institutions, had been largely completed by 2002. Reflecting these factors, FDI inflows to CEE fell sharply last year. The slower progress of privatisations in recent years has also held back FDI in many Latin American countries.

² Crisis related events in Latin America may also have magnified previously latent risks of investing in emerging market countries, in particular risks to FDI stemming from a possible abrogation of private contracts.

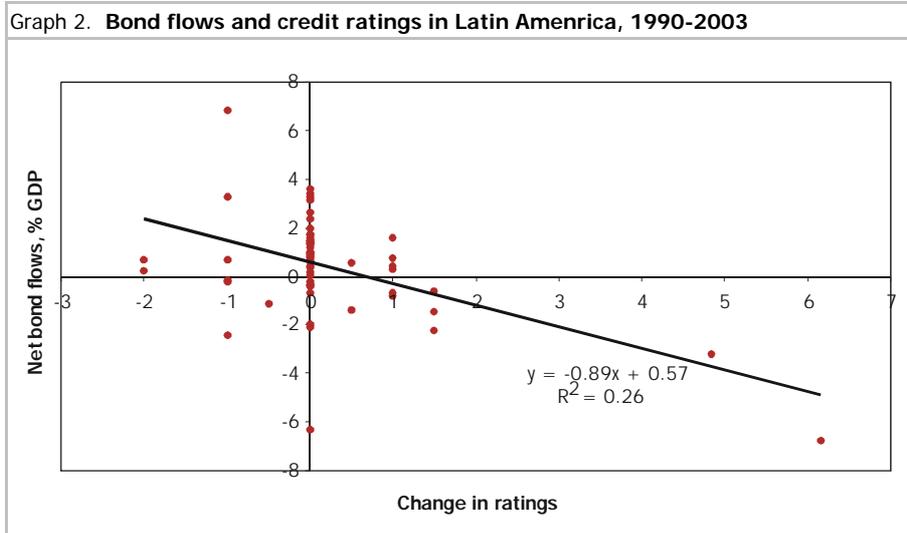
³ Graph 1 includes annual observations for China, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan and Thailand.

Detailed studies, including recent reports by the Committee on the Global Financial System (2003) and the Capital Markets Consultative Group (2003), have established a positive relationship between FDI inflows and other country and sector specific factors. Over the past decade, FDI flows have shifted towards countries with large domestic markets (including in the financial and services sectors) and those that participate in free trade agreements or regional trade integration schemes. To date, this shift has benefited Brazil, China, Mexico and EU accession countries in CEE, and it might well benefit India in the future.

Portfolio flows, comprising bond and equity flows, have been much less stable and subject to greater influence from global factors than FDI flows. The decline in bond and equity flows during 2001 and 2002 thus reflected not only conditions in the real economy (lower growth in industrial countries, crises in Argentina and Turkey, and weaker global growth prospects), but also financial market factors such as the fallout from the bursting of the technology and telecoms bubbles and increased risk aversion on the part of industrial country investors. Similarly, the surge in portfolio flows to the emerging markets in 2003 has resulted from a combination of factors. Among the country specific factors were improved credit ratings in many emerging market economies, as well as rising commodity prices and the prospect that emerging markets would benefit from strengthening global growth. These effects were particularly in evidence in Latin American countries. The regression line in Graph 2 suggests, for instance, that a one-notch upgrade in sovereign credit ratings in a Latin America economy is associated with an increase in net bond flows to that economy of about 0.9% of GDP a year.⁴

Yet favourable liquidity conditions in international capital markets have also played an important role. Very low policy interest rates in the main industrial countries encouraged investors to search for yield in the emerging markets, where bond returns and short term real interest rates were higher than in industrial countries. In addition, factors such as a low dispersion of spreads among differently rated emerging market bonds point to a greater “risk appetite” among industrial country investors.

⁴ *Graph 2 includes annual observations for Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela.*

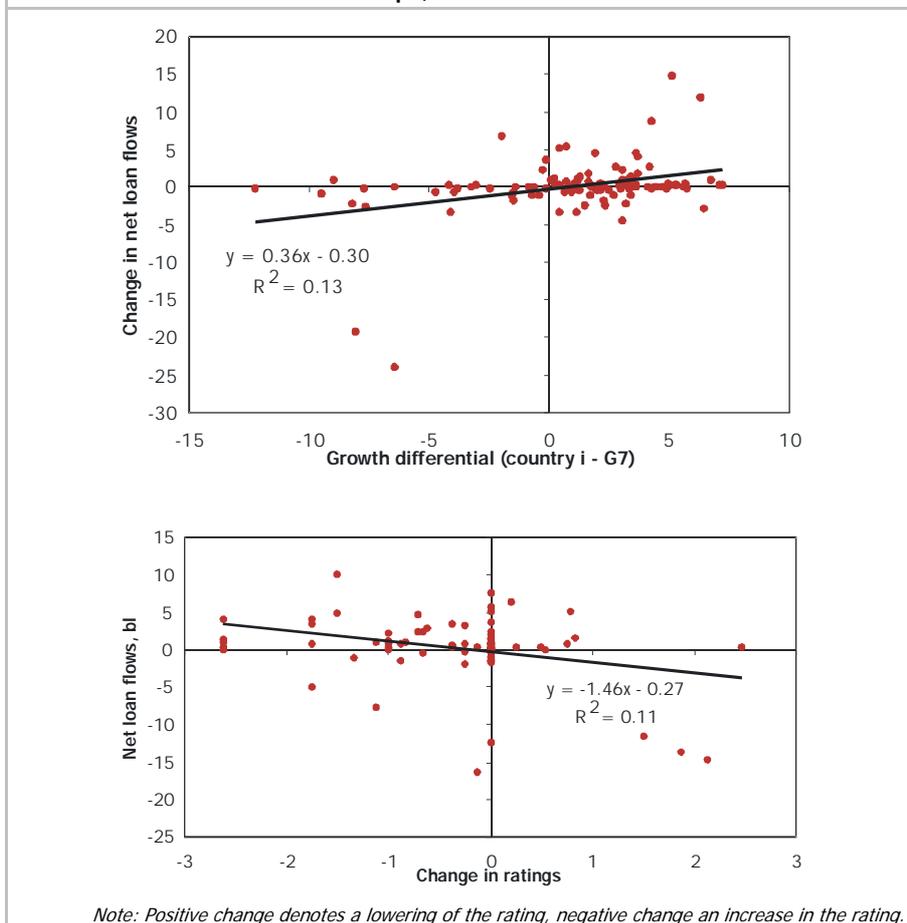


Note: Positive change denotes a lowering of the rating, negative change an increase in the rating.

Other private capital flows (trade credit and loans by commercial banks and non-bank financial institutions) turned positive in net terms last year for the first time since the mid-1990s. As in the case of portfolio flows, economies with relatively faster growth and improved credit ratings attracted larger loan inflows. These effects were particularly in evidence in central and eastern Europe. The regression line in Graph 3, upper panel, indicates that a 1 percentage point faster growth in a CEE economy relative to the average for G7 countries is associated with an annual increase in net loan inflows of \$360 million. Similarly, the regression line in the lower panel of Graph 3 indicates that a one-notch improvement in the sovereign credit rating is on average associated with \$1.5 billion in loans by commercial banks and non-bank financial institutions to that CEE economy.⁵

⁵ Countries included in Graph 3 are Bulgaria, the Czech Republic, Croatia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovakia, Slovenia and Turkey.

Graph 3. **Net loan flows, relative growth performance and credit ratings in central and eastern Europe, 1994-2003**



The shift in the composition of capital flows towards more volatile portfolio and loan flows raises the question of vulnerabilities to possible reversals. In January and May 2004, perceptions that US rates might rise sharply triggered a sudden widening of emerging market bond spreads. A second vulnerability relates to the improvement in debt dynamics in countries with debt denominated in or linked to foreign currencies (eg, Brazil and Turkey). To a significant extent, this improvement was due to exchange rate appreciation, which might be only temporary. The third vulnerability, particularly relevant to central and eastern European countries, is large fiscal deficits. As discussed in the next section, financial market volatility in Hungary in 2003 showed that positive market sentiment can be quickly reversed if the fiscal outlook does not improve.

At the same time, several factors moderate such risks. The growth has strengthened and broadened globally over the past two years, with commodity prices rising strongly. These trends are not expected to be sharply reversed in 2005. As noted above, the favourable external financing environment has enabled many countries to meet a part of their financing needs for 2005. Some highly indebted countries, including Brazil, Mexico and Turkey, have taken advantage of the favourable market conditions to improve their debt profiles by lowering borrowing costs, extending maturities and reducing the share of short term external debt and debt indexed to short term interest rates and exchange rates. Low inflation, increased reserve holdings and the earlier shift to floating exchange rates have also reduced vulnerabilities. Brazil, Turkey and some other countries have in addition maintained tight fiscal policies and continued to implement structural reforms.

Nevertheless, some countries, in particular in central and eastern Europe, have loosened their fiscal stance and slackened the pace of adjustment, or have seen a significant expansion of private sector credit. As argued below, underlying vulnerabilities masked by the ready access to financing are likely to become more apparent in these countries as the external financing environment turns less favourable.

3 Capital Flows to EU Accession Countries

Discussions on capital flows to EU accession countries have in the past mainly dealt with foreign direct investment inflows, addressing issues such as the determinants of inflows and their effects on the real sector. Other types of flows – equity, bond and bank- and non-bank loan flows – have been analysed considerably less.⁶ Likewise, the question of challenges that capital flows pose for macroeconomic policies in the region have until recently not been extensively analysed.

A good example of the former group of studies is the paper prepared for this conference by Lovrinčević, Mikulić and Marić (2004), who analyse the effects of different types of inflows on domestic investment in central and eastern Europe. They find that “other” inflows have the largest effect on domestic investment, followed by FDI inflows, while portfolio inflows do not seem to have any significant impact. More precisely, an increase in the share of other flows by 1% of GDP is found to raise the share of domestic

⁶ *On the determinants of bank lending to emerging market economies see Jeanneau and Micu (2002).*

investment by 0.33 percentage points; the impact of FDI inflows is 0.24 percentage points.

The relative sizes of these estimates should not come as a surprise. As noted above, “other” flows consist mainly of trade credit and loans extended by non-resident commercial banks and non-bank financial institutions. Trade credit is to a large extent used for imports of investment goods, which in the case of Croatia account for about 30% of total imports. And the bulk of domestic fixed investment in central and eastern Europe is traditionally financed by domestic and foreign bank loans. On the other hand, most FDI inflows have been associated with privatisations of existing companies rather than greenfield investments. Thus, it is not surprising that the estimated impact of FDI inflows on domestic investment is smaller than that of loan flows. And regarding portfolio inflows, non-residents’ purchases of equities in regional equity markets have been very low (with the exception of Poland) and therefore could not contribute too much to domestic capital formation. Likewise, funds raised through bond issuance have been mostly used by governments to finance large budget deficits – which are in most cases not the result of public investments – rather than by corporations for the purpose of investment.

Turning to the literature on challenges that capital flows pose for macroeconomic policies, one important issue is the so-called Tošovský dilemma. Another major research area has been conditions under which accession countries are expected to join the European Monetary Union (EMU). A third area, which has yet to be researched, is empirical evidence on capital flows in the run-up to membership in EMU. These three issues are examined in the remainder of this paper.

The Tošovský Dilemma

The Tošovský dilemma, named after former Czech prime minister and long-time governor of the Czech National Bank Josef Tošovský, stems from two stylised facts that are intrinsic to the economies that are rapidly catching up with the more developed economies in an environment of free capital flows.⁷

⁷ *This section is based on Mihaljek (2004a).*

First, the pre-inflow rate of return on investment in the catching-up economies is much higher than in the mature economies of EMU, reflecting imbalances in initial stocks of capital and a relatively rich endowment of skilled labour in CEE.⁸ This differential could induce large inflows of long-term capital, for instance in the form of foreign direct investment.

Second, in the catching-up economies there is a tendency for inflation to be higher than in mature economies. This may reflect macroeconomic policies that are too lax (especially fiscal policy). But it may also reflect important real factors related to the transition process, in particular the tendency for prices of non-tradable goods to rise faster than the prices of tradables as real wages rise in the wake of rising productivity (the so-called Balassa-Samuelson effect; see Mihaljek and Klau, 2004). In countries with fixed exchange rates, these same forces have also manifested themselves in (CPI-based) real exchange rate appreciation, while in countries with floating exchange rates they have manifested themselves partly in nominal exchange rate appreciation and partly in higher inflation. Given this inflation differential and the associated tendency of real exchange rates to appreciate, nominal interest rates in accession countries have tended to be higher than in the euro area. Such nominal interest rate differentials, although narrowing, remain sufficiently large to attract short term capital inflows.

Consequently, the monetary authorities face a dilemma. If they set real interest rates low enough in an attempt to limit the short-term inflows (which seek to exploit nominal interest rate differential), large inflows seeking to exploit a high return on capital might nevertheless occur.⁹ Ex post, there might be a massive imbalance between investment and saving and a large current account deficit. If, by contrast, the authorities attempt to correct this imbalance by keeping domestic interest rates high, large arbitraging inflows would be stimulated. While various fundamental and institutional factors may slow this process, it is not likely that these frictions would be sufficiently large to afford the accession countries any significant interest rate autonomy. In both cases, capital inflows would undermine efforts to control inflation and contain large current account deficits, even if countries followed prudent macroeconomic policies.

⁸ *Lipschitz et al. (2002) estimate the marginal product of capital to be 8½ times higher in the accession countries than in Germany, and on this basis calculate potential capital inflows at close to 5 times their initial (pre-inflow) GDP.*

⁹ *For example, if the real interest rate in Germany is 2½% and the Czech koruna is expected to appreciate on average by 5% a year in real terms, then from the point of view of international arbitrage flows (and ignoring the risk premia), the equilibrium real interest rate in the Czech Republic should be -2½%.*

It is important to realise that this dilemma is independent of the exchange rate regime. Because the mechanisms motivating capital inflows are real rather than monetary, the only question is whether a real appreciation takes place through nominal appreciation or through inflation. Under a fixed regime (or a fixed but adjustable peg), capital inflows will reduce interest rates and increase investment relative to domestic saving. If inflation rises, external competitiveness would decline. While the monetary impact of inflows might be sterilised, sterilisation would likely be incomplete and would involve some costs, as the central bank would be buying low-yielding foreign assets while issuing higher-yielding domestic liabilities. Under a floating regime, capital inflows would lead the exchange rate to appreciate, again causing a loss of competitiveness and generating a current account deficit.

One should also bear in mind that capital inflows can suddenly reverse when conditions change – if, for instance, ambitious strategies to reduce budget deficits in the run-up to ERM II were to go off-track, or if inflation control were to weaken. International investors might become uncertain even if underlying policies remain sound. In such conditions, an external shock, contagion from other markets, or political uncertainties might trigger a rush for the exit, potentially leading to the negative effects of the “sudden stops” in capital flows, ie, sharp devaluation, output contraction and fiscal sustainability problems.

Capital inflows might also give rise to or worsen pre-existing currency mismatches in the financial system. As a result of the inflows, banks could acquire liabilities denominated in euros and grant loans in local currency, thus exposing their balance sheets to exchange rate risk. Hedging that risk is costly in accession countries’ shallow financial markets. Banks may be - and frequently are - requested to balance their foreign positions by prudential regulations. Nonetheless, if the banks grant loans in euros, they may simply replace foreign exchange risk by credit risk, as their customers – in particular households and companies producing non-tradable goods and services – may not be earning foreign currency. Croatia and some other CEE countries are already exposed to large currency mismatches as a result of historical circumstances, such as large foreign currency deposits remitted by expatriate workers in western Europe, or currency substitution induced by long periods of macroeconomic instability in the past. Because of such currency mismatches, banking and financial systems are highly vulnerable to volatile exchange rate movements. Furthermore, debt in central and eastern Europe is already skewed towards foreign rather than domestic liabilities, which may give rise to debt sustainability problems.

Options for Monetary and Exchange Rate Policies

What is the relevance of the Tošovský dilemma for the choice of exchange rate regimes in the new member states and EU accession countries such as Croatia?¹⁰

All accession countries are expected to become members of EMU and hence to participate in ERM II, for which they can apply at any time after joining the EU. ERM II is an exchange rate arrangement with fixed but adjustable central parities against the euro and a “normal” fluctuation band of $\pm 15\%$ around these parities. The timing of entry into ERM II is important because it influences the timing of EMU assessment and thereby the timing of the adoption of the euro. The accession countries will be able to keep their existing exchange rate regimes upon entry to the EU. But they will have to treat their exchange rate policy as a matter of common concern, a requirement aimed at preventing competitive devaluations. Moreover, the accession countries will have to fully liberalise capital flows and comply with certain provisions of the Stability and Growth Pact, in particular, avoiding excessive fiscal deficits. Upon entry to ERM II, countries with floating or managed exchange rate regimes will have to modify their regimes because exchange rates in ERM II are allowed to fluctuate only within a $\pm 15\%$ band around a fixed central parity vis-à-vis the euro.

In view of the challenges for monetary and exchange rate policies that the Tošovský dilemma and large capital flows in general may pose in ERM II, academics and policy makers have proposed several alternatives to this “official roadmap” to the euro area. Generally, it has been argued that mechanisms that allow joining EMU earlier than foreseen in the official roadmap would reduce the currency mismatch problem, the need for exchange market interventions, and the risk of capital flow reversals. The Balassa-Samuelson effect could be accommodated through higher inflation without affecting significantly the euro area inflation. It has to be recognised, however, that early EMU membership might not eliminate the volatility and inflationary effects of excessive capital inflows. Unsustainable booms might be followed by rising inflation. Risk taking by banks and financial institutions could become excessive even in the absence of currency mismatches.

Leaving aside the fact that the new member states had to liberalise most capital restrictions (with the exception of those on real estate transactions), one proposed

¹⁰ *This section draws on Mihaljek (2004b).*

modification that could make ERM II more robust would be allowing countries to retain certain capital controls until they join EMU. The accession countries could, for instance, retain or introduce price-based controls on short-term capital inflows similar to those used in Chile and Spain in the past. While even well designed capital controls do not offer unlimited protection against speculative attacks, they may provide some valuable breathing space that could make the difference between a managed depreciation and a currency collapse (Wyplosz, 2002). Capital controls could also lead to more realistic risk premia on accession countries' debt, signalling to investors that, even though these countries are candidates for EMU, their structural characteristics – in particular, the large saving-investment imbalance – justify higher domestic interest rates than in the euro area.

One could argue, however, that countries facing large capital inflows that wish to avoid undue currency appreciation or problems associated with sterilisation of these inflows (including excessive credit expansion and foreign reserves accumulation) should ease controls on capital outflows rather than strengthen controls on capital inflows. The easing of outward foreign exchange controls would also promote a less distorted environment for financial investments, in particular of institutional investors such as pension funds, which are often restricted to holding mainly domestic assets.¹¹ Because of underdeveloped debt markets, in most new member states this restriction implies that pension funds are more or less forced to hold government bonds.

Under a more radical set of proposals, accession countries would be allowed to retain their current exchange rate regimes (thus bypassing ERM II) and enter EMU at a mutually agreed parity as soon as they fulfilled the Maastricht criteria (Buiters and Grafe, 2002; Wyplosz, 2002). Proponents of this route argue that a free float or a currency board would be less susceptible to speculative attacks than ERM II. Moreover, countries with a currency board arrangement could satisfy the Maastricht criteria relatively quickly and be admitted to EMU in less than two years. At the same time, a floating exchange rate regime offers an easier way to deal with the capital inflow problem than ERM II, and it sends a signal to economic agents that currency mismatches are dangerous. Potential weaknesses are that floating requires deep exchange and financial markets and

¹¹ For instance, South Africa eliminated in October 2004 all restrictions on the size of new foreign investments that South African companies can make abroad. Local companies will also be allowed to retain foreign dividends offshore. Restrictions will remain on individuals, however, and institutional investors will still be subject to prudential limits on foreign assets or the foreign currency share of their portfolios.

that currency boards may not be flexible enough to accommodate strong Balassa-Samuelson effects. Moreover, as argued above, neither a free float nor a currency board resolves the Tošovský dilemma.

The most far-reaching proposal is to let the countries in central and eastern Europe adopt the euro unilaterally. While this regime was originally formulated for EU accession countries, recently it has attracted attention as a possible long-term solution for non-accession countries in southeast Europe (Albania, Bosnia and Herzegovina, Macedonia, Serbia and Montenegro).¹² Proponents of this view also claim that unilateral euroisation might reduce political influence over credit allocation in the domestic banking system, which has traditionally been one of the main sources of financial vulnerability. Unilateral euroisation would entail nearly the same benefits as membership in the euro area, the main exception being representation on ECB governing bodies. But it is not without costs. First, the central bank would have to use foreign reserves to retire the domestic currency from circulation. Second, it would lose the seigniorage revenue obtained by issuing domestic currency. Third, the central bank's role as a lender of last resort to domestic financial institutions would be limited by the size of foreign reserves remaining after the retirement of domestic currency. But the biggest danger might be that the "wrong" conversion parity is chosen. In other words, unilateral euroisation cannot entirely eliminate the risk of a future regime change, nor can the monetary authority automatically adopt the credibility of the euro (Nuti, 2002).

A small but influential group of economists continues to argue strongly against the official "roadmap".¹³ However, by the time the new member states had joined the EU the majority of policy makers and academic economists seem to have accepted the notion that the accession countries will have to fulfil the Maastricht criteria as they stand. As a result, the attention in the literature over the past year has gradually shifted towards the design of macroeconomic policies for yet another transition period – that preceding membership in EMU (see De Grauwe and Schnabl, 2003) – as well as towards empirical issues such as equilibrium exchange rates for entry to ERM II and the related question of the Balassa-Samuelson effect (see Austrian National Bank, 2003).

¹² For the original proposal, see Bratkowski and Rostowski (2000, 2002) and Rostowski (2002). On euroisation for southeast European countries, see Gros (2002). See also Buiter and Grafe (2002) on the adoption of the euro as a parallel currency.

¹³ See eg Begg et al (2003), Buiter (2004), Buiter and Grafe (2004) and Eichengreen (2003).

Official Views

EU institutions have rejected proposals for retention of capital controls in ERM II and for early adoption of the euro. Slovenia, for instance, tried to negotiate an exemption to by-pass ERM II, arguing that factual stability of the exchange rate before EU entry should satisfy the Maastricht exchange rate criterion (Lavrač, 2002). But the EU considered this incompatible with the *acquis*.

With respect to unilateral euroisation, the European Commission has argued that:

“any unilateral adoption of the single currency by means of ‘euroisation’ would run counter to the underlying economic reasoning of EMU in the Treaty, which foresees the eventual adoption of the euro as the endpoint of a structured convergence process within a multilateral framework. Therefore, unilateral ‘euroisation’ would not be a way to circumvent the stages foreseen by the Treaty for the adoption of the euro” (European Commission, 2001; p. 21).

This position has been challenged by Nuti (2002), who points out that the Treaty does not prevent a country or a political entity from adopting the euro as its domestic currency. It seems, therefore, that underlying the concern about unilateral euroisation seems to be the fear that, by fixing the conversion rate of the domestic currency against the euro unilaterally, countries could gain an unfair advantage *vis-à-vis* incumbent members and EMU candidates.

The ECB has clarified its position on exchange rate issues relating to the accession countries in a policy statement issued in December 2003 (ECB, 2003). The main points of this position are summarised in the left-hand column of Table 2.

During 2004, the European Central Bank has further clarified its position on certain operational aspects of ERM II. ECB officials acknowledged that a conflict between an inflation target and exchange rate stability objective might arise in ERM II (Papademos, 2004). Should this happen, central banks would be advised to give priority to the inflation target. Moreover, the new member states were advised not to seek to join ERM II until they have made substantial progress towards fulfilling the Maastricht criteria. Issing (2004) noted that: “If participation in ERM II occurs too early, maintaining simultaneously price stability and exchange rate stability could become extremely difficult, and at times impossible”. This view reflects the finding that the ECB strategy was chosen taking into account the specific features of the euro area, which are likely not

to be present currently in the new member states. The choice of a monetary strategy in the transition towards the adoption of the euro should thus depend on the individual countries' specific features during the transition period. Since monetary aggregates are unstable in the face of rapid changes in these countries' financial structure, a prominent role for monetary aggregates specified in the euro area may not be ideal for the new member states. In addition, since most of the new member states are small open economies relative to the large and more closed euro area, their domestic aggregates are likely to be less stable. In these circumstances, inflation targeting probably represents the optimal monetary policy framework for the countries that adopted it (Issing, 2004).

While these statements signal a slight shift in the official policy thinking, which until recently highlighted the advantages of ERM II, perspectives on some other issues continue to differ between EU institutions and the new member states (Table 2, right-hand column). One concern expressed by several central banks in the context of discussions on ERM II is the interpretation of the exchange rate stability criterion. The bands of ERM II are fairly wide: $\pm 15\%$ around the central parity against the euro, which itself can be adjusted. However, the ECB's framework statement (ECB, 2003) envisages that the assessment of exchange rate stability will focus on the exchange rate being "close to the central rate while also taking into account factors that may have led to an appreciation" (the issue of "severe tensions" is dealt with separately). How close is "close to the central rate" has not been explicitly revealed, although statements by some EU officials and past experience suggest that this is probably meant to be a band of $\pm 2\frac{1}{2}\%$ around the central parity. Papademos (2004) confirmed that the ECB's assessment of exchange rate stability in ERM II will focus on the exchange rate being "close to the central parity", and that deviations from the parity will not be treated symmetrically: factors that may have led to an appreciation will be taken into account, but apparently not those that may have led to depreciation.

Likewise, there has been no official questioning of the rationale for the definition of the Maastricht inflation criterion – the average inflation rate in three member countries of the EU with lowest inflation, rather than the average inflation in EMU. In 2003, for instance, had they been members of EU the Czech Republic, Lithuania and Poland would have been the three EU member states with the lowest inflation, setting the benchmark for the

Maastricht inflation criterion that eight of the 12 current EMU members would not have met.¹⁴

European institutions' perspective	New member states' perspective
The roles of ERM II are to help participating states orient their policies to stability and to foster convergence. By requiring consistent economic policies, ERM II could help provide a more stable macroeconomic environment and act as a catalyst for structural reforms.	Any disciplinary impact of ERM II in addition to the Maastricht criteria for the euro adoption and the multilateral surveillance under the Stability and Growth Pact might be negligible.
ERM II, with its announced central parity, would provide guidance to participants in foreign exchange markets and act as a testing phase for both the central rate and the sustainability of convergence in general.	ERM II is an intermediate exchange rate regime that puts policy makers in a dilemma between their inflation target and exchange rate objective and creates risks of speculative attacks (case of Hungary in 2003).
The standard fluctuation band of $\pm 15\%$ would leave sufficient room for exchange rates to adjust to structural changes in the economy and various shocks. If the accumulation of shocks or fundamental changes substantially modify the equilibrium level of the exchange rate, ERM II allows for adjustments of the central parity.	The standard fluctuation band plus the possibility of upward realignments might signal that the exchange rate could appreciate by 15% or more. Efforts to stabilise the exchange rate within the band in the face of speculative attacks could further increase exchange rate volatility.
ERM II provides a mechanism for anchoring inflation expectations and speeding up disinflation. This is important for central Europe's small open economies where the exchange rate plays a more important role in the monetary transmission mechanism than interest rates.	Current monetary arrangements ranging from currency boards to free floats with inflation targeting are credible: inflation rates are already mostly low; policy rates and long-term bond rates have converged toward euro area levels; expectations of low inflation are well-ingrained.
Unlike other intermediate regimes, ERM II entails ultimate exit into the euro area, thus making the system more resilient than other intermediate regimes.	Acceding countries are either ready to adopt the euro, in which case ERM II is not needed; or they are not, in which case ERM II is not a sufficiently safe policy framework.
Limiting the duration of ERM II membership to two years may not be an optimal choice for all accession countries in view of the varying degrees of their convergence.	Most new member states view ERM II as a "waiting room" for EMU and intend to enter it once the conditions enabling them to adopt the euro within two years are established.

Notes: ¹The official positions of European institutions and new member states are considerably more nuanced than the perspectives summarised in this table. For official positions, see the sources below.
Sources: ECB (2003); European Parliament (1999); Backé and Thimann (2004); Noyer (1999); Padoa-Schioppa (2002); and country policy statements on central bank and government websites.

Most new member states have for their part already announced their intentions regarding participation in ERM II and joining the EMU (Table 3).

- The Baltic countries intend to keep their currency board arrangements in ERM II. Estonia and Lithuania joined the mechanism on 27 June 2004 and Latvia is expected to

¹⁴ Average inflation in the Czech Republic, Lithuania and Poland in 2003 was 0.5%. Adding a 1½ percentage point margin would have given an inflation criterion of 2%. In 2003, only Austria, Belgium, Finland and Germany had inflation below 2%.

enter ERM II in early 2005. Estonia and Lithuania set their central parities against the euro at the same exchange rates at which their currencies traded against the euro under currency boards. Both countries also adopted zero fluctuation margins as a unilateral commitment and placed no additional obligation on the ECB to intervene in the foreign exchange markets to defend the central parities. Since the Maastricht criteria for these countries are more or less fulfilled, they have considered themselves virtually in EMU even in the past; as a result, they want to minimise the length of their stay in ERM II.

	Present exchange rate regime	Euro target date	ERM II participation
Bulgaria	Currency board with euro	2009	Immediately upon EU accession in 2007; keep currency board
Croatia	Managed float, euro as reference	Not stated	Immediately upon EU accession
Cyprus	Peg to the euro, with $\pm 15\%$ fluctuation bands	2007	Join ERM II early by keeping the current exchange rate framework
Czech Republic	Managed float with inflation targeting (2–4% by end-2005)	2009/2010	Participate no longer than two years; insist on $\pm 15\%$ margins
Estonia	Currency board with euro	2007	Joined ERM II in June 2004, central parity same as currency board rate, zero fluctuation margins
Hungary	Peg to euro with wide band ($\pm 15\%$ around a central parity)	2010	Postpone ERM II participation until markets consider the fiscal path credible and sustainable
Latvia	Peg to SDR	2008	Early 2005; currency pegged to the euro in December 2004 at the prevailing market rate; will keep narrow $\pm 1\%$ band
Lithuania	Currency board with euro	Mid-2006	Joined ERM II in June 2004, central parity same as currency board rate, zero fluctuation margins
Poland	Float	2008/2009	Participate no longer than two years; insist on $\pm 15\%$ margins
Malta	Peg to a basket of euro (70%), US dollar and pound sterling	2008	Prepare for ERM II in 2005; participate no longer than two years
Romania	Managed float, euro as reference	Not stated	Not stated
Slovakia	Managed float, with inflation targeting	2007	Switch to inflation targeting within ERM II in 2005/06. Participate in ERM II no longer than two years
Slovenia	Managed float, euro as reference	2007	Joined ERM II in June 2004, central parity equal to market rate, normal fluctuation margins

Sources: Policy statements on central bank and government websites; European Commission; European Central Bank.

- Slovenia also joined ERM II in June 2004 and intends to adopt the euro in 2007. The tolar will trade at the normal fluctuation margins of $\pm 15\%$ around a central parity, which was set at the tolar/euro exchange rate prevailing on the last business day before entering ERM II. The Slovenian authorities noted in the past that waiting longer than necessary in ERM II could prove to be more of a burden than an incentive for the economy. The central bank projects inflation to be cut below 3% by mid-2005, thus clearing the main Maastricht hurdle for Slovenia.
- Other new EU member states and candidates (Bulgaria, Croatia, Romania, Slovakia and Turkey) have over the past year either announced or slightly modified their strategies for the adoption of the euro (Table 3).
- One potentially more significant policy shift took place in Hungary, which originally had considered the earliest possible entry into ERM II with the intention to stay inside the mechanism for as long as necessary to meet the Maastricht criteria (National Bank of Hungary, 2003). This approach reflected the view that without the incentive of membership in the euro area, fiscal reforms in Hungary would not advance. However, the authorities recently expressed doubts about the rationale for joining ERM II early, noting that a prerequisite for joining ERM II was that markets considered the fiscal path credible and sustainable (Jarai, 2004). This seems to reflect both experience with turbulence in Hungary's foreign exchange and bond markets in 2003 (discussed below), and the emergence of a consensus that ERM II should not be regarded as a tool to impose fiscal discipline – the risk of speculative attacks in countries that enter the mechanism with weak fiscal positions seems to be very high. The target date for joining EMU is currently set for 2010 (Government of Hungary, 2004). If conditions turn out to be more favourable and inflation falls more rapidly than currently envisaged (ie, to 3% per annum in 2008), the adoption of the euro could take place in 2009.
- The Polish authorities take the view that membership in ERM II should be confined to two years preceding adoption of the euro. As Poland has gone through all exchange rate regimes and is currently focusing on direct inflation targeting, the central bank does not see the need to anchor inflation expectations through the exchange rate. If fiscal adjustment proceeds as planned, Poland could join EMU in 2008 or 2009.
- The Czech Republic has indicated that it will not seek an early entry into ERM II. The authorities view ERM II merely as the gateway to the euro area, and intend to enter the

mechanism only after they have established the conditions that will enable the Czech Republic to adopt the euro in the minimum time required (ie, two years after joining the ERM II) (Czech Government and the Czech National Bank, 2003; Czech National Bank, 2003). Based on existing fiscal plans, this would imply membership in the euro area in 2009 or 2010.

In summary, the official position remains firmly anchored in the Treaty principles, but allows for a certain degree of flexibility (eg, on exchange rate strategies, adjustment of central parity, assessment of exchange rate stability) to be used in appropriate circumstances, taking into account the specific situation of each individual country and the principle of equal treatment. Regarding country positions, all accession countries with the exception of Hungary aim to participate in ERM II no longer than the minimum required period of two years. The key issue determining the timing of entry to EMU in the Czech Republic, Hungary, Poland and Slovakia is the timetable for the reduction of budget deficits. In Slovenia, the key issue is lowering inflation. In the Baltic countries, where fiscal deficits and inflation are already low, no major obstacles for an early adoption of the euro are foreseen.

Empirical Evidence on Capital Flows in the Run-Up to ERM II

How likely are scenarios under which capital flows could affect the operation of ERM II? To address this question, this section first analyses Hungary's experience with speculative attacks in 2003 (Box 1), and then compares empirical evidence on capital flows to central and eastern Europe with the flows to the southern European countries as they prepared to join EMU in the 1990s.

On the basis of Hungary's experience, some observers concluded that all countries in CEE would be susceptible to such attacks once they entered ERM II. With potentially very large amounts of foreign capital flowing into and out of these economies, it might be difficult to keep currencies within the $\pm 15\%$ band and control inflation at the same time. Moreover, frequent and large adjustments of interest rates to respond to these external pressures could destabilise the economies domestically (Begg et al., 2003).

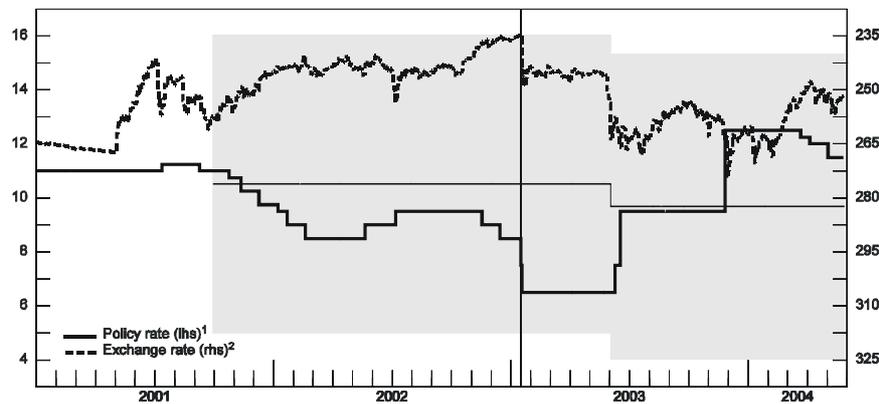
Upon closer examination, however, Hungary's experience does not support these arguments. The speculative attack in January was partly due to the misinterpretation of

institutional arrangements by the speculators: the National Bank of Hungary needs legal consent from the government before amending any aspect of the exchange rate arrangement. The attacks in June and November can be more clearly linked to policy mistakes rather than any defect of the exchange rate arrangement per se. In particular, the lack of decisive action on the fiscal front, difficulties in communicating the reasons for the adjustment of the central parity, and the use of a narrower target range have confused investors, denting their confidence in medium-term prospects for the economy. The real lesson of this experience is that regardless of the exchange rate regime, markets are likely to punish inconsistent policies eventually.

Box 1. Turbulence in Hungary's currency and domestic bond markets in 2003

Since October 2001, Hungary has operated a fixed parity regime against the euro, in which the forint can move within a band of $\pm 15\%$ each side of the central parity. On the domestic side, this regime has been complemented with inflation targeting. The forint had traded on the strong side of the parity throughout 2002, reaching the upper limit of the band in late 2002 and early 2003 (Graph 4). As the fiscal deficit widened to almost 10% of GDP and public sector wages were raised by 50% over two years, speculators bet that the central bank would revalue the central parity or even perhaps allow the forint to float in order to meet its inflation target. Short-term inflows estimated at some €4–5 billion (equivalent to 7–8% of annual GDP) entered Hungary within only a few hours on 15–16 January 2003. To deter inflows, the National Bank cut policy rates by 200 basis points within two days, introduced a quantitative restriction on short-term deposits, and intervened heavily in the foreign exchange market.

Graph 4. Interest rate and exchange rate in Hungary



Note: The shaded area represents the $\pm 15\%$ band around the central parity (thin line).
¹ In percentages. ² Forint per euro (inverted scale); a decline indicates a depreciation.
 Sources: Bloomberg; national data.

Box 1. continued

On 4 June 2003, the central bank, at the initiative of the government, reluctantly devalued the central parity by 2¼%. This adjustment was intended to increase the external competitiveness and guarantee that the exchange rate would not appreciate beyond the 15% upper bound. The government also announced a small fiscal package. Subsequently the authorities disclosed that they would prefer the exchange rate to stay within a “preferred” target range of 250–260 forints per euro. This was some 10% above the central parity but within the wider existing band of 240–325 forints. However, the financial markets interpreted this move as a sign of underlying weakness and the forint was soon under strong downward pressure, forcing the central bank to raise interest rates by 300 basis points to stop the slide.

In late November the forint came under renewed pressure as the high budget deficit and the rapid expansion of household borrowing raised the current account deficit, weakening the confidence of long-term investors. In addition, many short-term investors who suffered losses as a result of the January attack apparently sold forint denominated bonds to cover their losses before the end of the year. To help stabilise the forint, the central bank again raised interest rates by 300 basis points (to 12½%). At the same time, the government announced a more restrictive budget for 2004 (including a trimming of the subsidies on housing loans, which had helped fuel credit growth) and abandoned the policy of announcing a preferred range for the forint, which has apparently served as a target for speculators. These measures have subsequently calmed the foreign exchange and bond markets.

What is the empirical evidence on capital flows to other central and eastern European countries, as well as the southern European countries in the period before they joined EMU?

Increased capital flows were also observed in Greece, Italy, Portugal and Spain in the run-up to the adoption of the euro. In the case of Greece, these flows were for the most part “hot money” seeking to take advantage of the higher yields offered by Greek government bonds, which reflected higher inflation and interest rate differentials at the time. As convergence toward EMU started to reduce the country risk premium, the yields began to narrow, offering further capital gains (Hochreiter and Tavlas, 2003).

In the case of Portugal, capital inflows were not channelled to the government bond markets as fiscal deficits were more or less under control. Instead, growing financial integration had led to a demand boom on the eve of EMU membership, so the authorities had to use strong prudential regulation to control credit expansion.

A key consideration in this context is that countries in central and eastern Europe have already experienced capital flows on a larger scale than Greece, Ireland, Italy, Portugal and Spain before they joined EMU. Table 4 and Graph 5 show that, with the exception of Slovenia, net private capital flows have been significantly higher in the accession

countries during 1995–2003 than in Ireland, Italy, Portugal and Spain during 1994–99 (in Greece, during 1996–2000). For instance, net private capital flows in Croatia were equivalent to 12% of GDP on average during 1995–2003, compared with less than 4½% of GDP in Greece and Portugal. Net private capital flows in the Czech Republic, Estonia, Latvia and Slovakia averaged between 8½–10½% of GDP over this period, double the average for the five current EMU members.

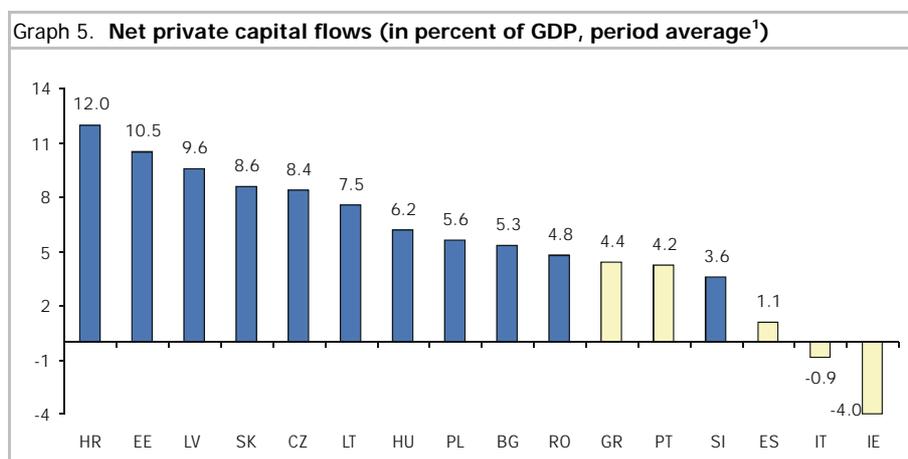
	Level (% of GDP)					Standard deviation				
	Total	FDI	Debt	Equity	Loan	Total	FDI	Debt	Equity	Loan
Bulgaria	5.3	4.9	-0.7	0.0	1.1	7.1	2.5	1.0	0.2	5.1
Croatia	12.0	4.3	2.1	0.0	5.5	3.5	2.6	2.0	0.1	3.9
Czech R.	8.4	6.9	-0.5	0.5	1.6	4.6	4.1	1.4	1.5	4.4
Estonia	10.5	5.5	0.3	1.4	3.4	4.4	2.9	2.7	1.7	3.9
Hungary	6.2	4.0	1.4	0.6	0.3	4.9	2.9	2.8	1.2	3.3
Latvia	9.6	5.3	-2.0	0.0	6.3	2.4	2.1	3.3	0.9	2.5
Lithuania	7.5	3.8	1.2	0.2	2.2	2.4	2.1	1.6	0.3	1.9
Poland	5.6	3.3	0.8	0.2	1.4	1.4	1.1	0.7	0.4	1.4
Romania	4.8	2.6	0.2	0.1	1.9	2.0	1.2	1.0	0.2	1.7
Slovakia	8.6	4.9	1.0	0.3	2.3	3.7	5.4	2.2	0.4	4.6
Slovenia	3.6	1.6	0.8	0.0	1.3	2.2	2.5	1.1	0.2	2.0
Average	7.5	4.3	0.4	0.3	2.5	3.5	2.7	1.8	0.6	3.2
Greece	4.4	0.2	2.7	-0.3	1.9	4.2	0.7	3.6	1.1	2.8
Ireland	-4.0	4.4	-12.6	6.6	-2.4	3.3	4.8	17.4	10.5	3.2
Italy	-0.9	-0.4	2.1	-1.1	-1.5	0.6	0.3	1.5	2.4	2.0
Spain	1.1	-0.8	-0.8	-0.3	3.1	2.7	1.9	3.1	0.7	4.8
Portugal	4.2	0.0	-0.8	0.7	4.4	2.6	0.9	2.8	1.4	2.7
Average	1.0	0.7	-1.9	1.1	1.1	2.7	1.7	5.7	3.2	3.1

Note: ¹Average net flows over 1995–2003 (accession countries) and 1994–99 (EMU members; except Greece, 1996–2000).

Sources: IMF; author's estimates.

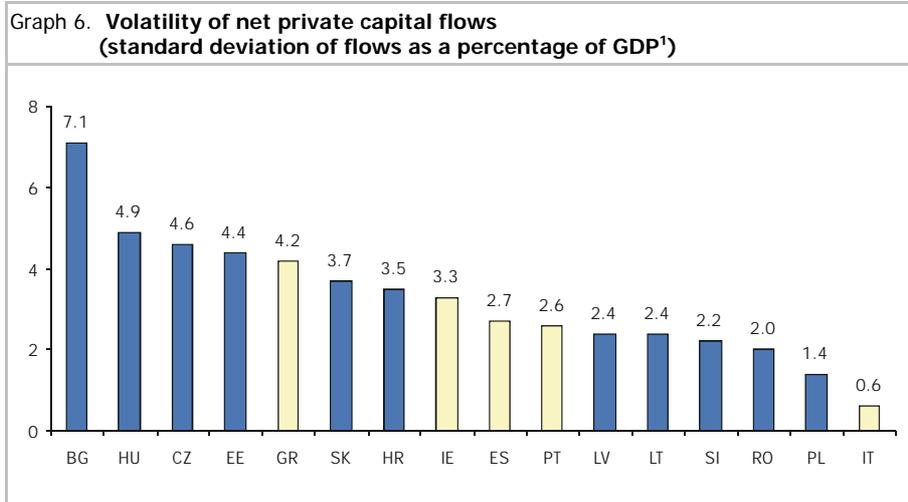
Also relevant for the debate on the Maastricht criteria is the finding that the variability of FDI flows has been higher in central and eastern Europe than in five current members of EMU, while that of loan flows has been equally high on average (Table 4 and Graph 6). The fact that FDI inflows have been mostly related to the sales of state-owned enterprises and that most firms have by now been privatised, suggests that volatility of FDI is not likely to be higher in the future.

Regarding cross-border loan flows, the situation varies from country to country. As shown in Graph 7 (lower right-hand panel), the Baltic states, Croatia and Slovakia have already experienced very large loan flows. There is also some evidence of increased borrowing by foreign-owned banks in CEE from their head offices in EU countries to finance domestic credit expansion. However, this type of flows is less likely to persist over a longer period because the resulting increase in indebtedness relatively quickly triggers a self-correcting adjustment. Other determinants of loan flows – interest rate differentials and demand for credit – will, of course, also change and influence the size and direction of flows. But in countries whose financial systems are still not well integrated with EU (eg, Bulgaria and Slovenia), loan flows are likely to increase over the medium term.

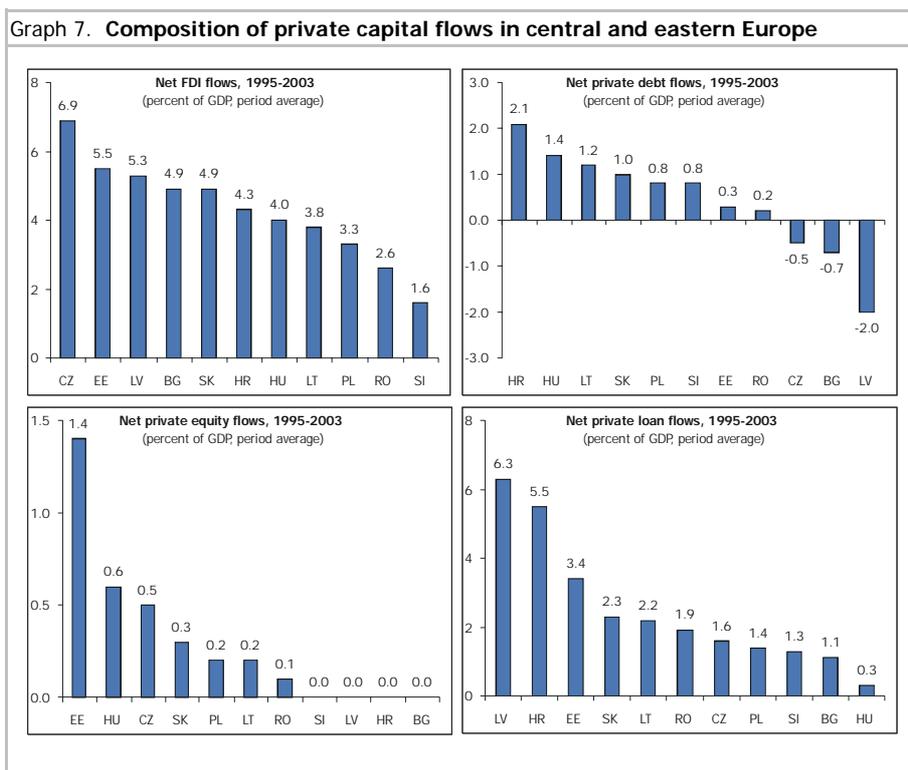


Note: ¹For accession countries, 1995–2003; for EMU members, 1994–99 (except Greece, 1996–2000).
Sources: IMF; author's estimates.

The level and variability of equity and debt flows have been significantly lower in most new member states. This reflects a lower level of financial market development in the region relative to the four southern European countries, and lower stocks of public sector debt. Again, there are large differences across countries. Net equity flows to Estonia, the Czech Republic and Hungary were on average higher and no less volatile than those to Greece, Portugal and Spain (Graph 7, lower left-hand panel). Likewise, net debt flows to Croatia were comparable to those in Greece and Italy (Graph 7, upper right-hand panel). Developments in 2003 and 2004 indicate that the composition of capital inflows is changing in many countries in the region towards equity and debt flows, so it is reasonable to expect that portfolio flows in the region will become more volatile in the future.

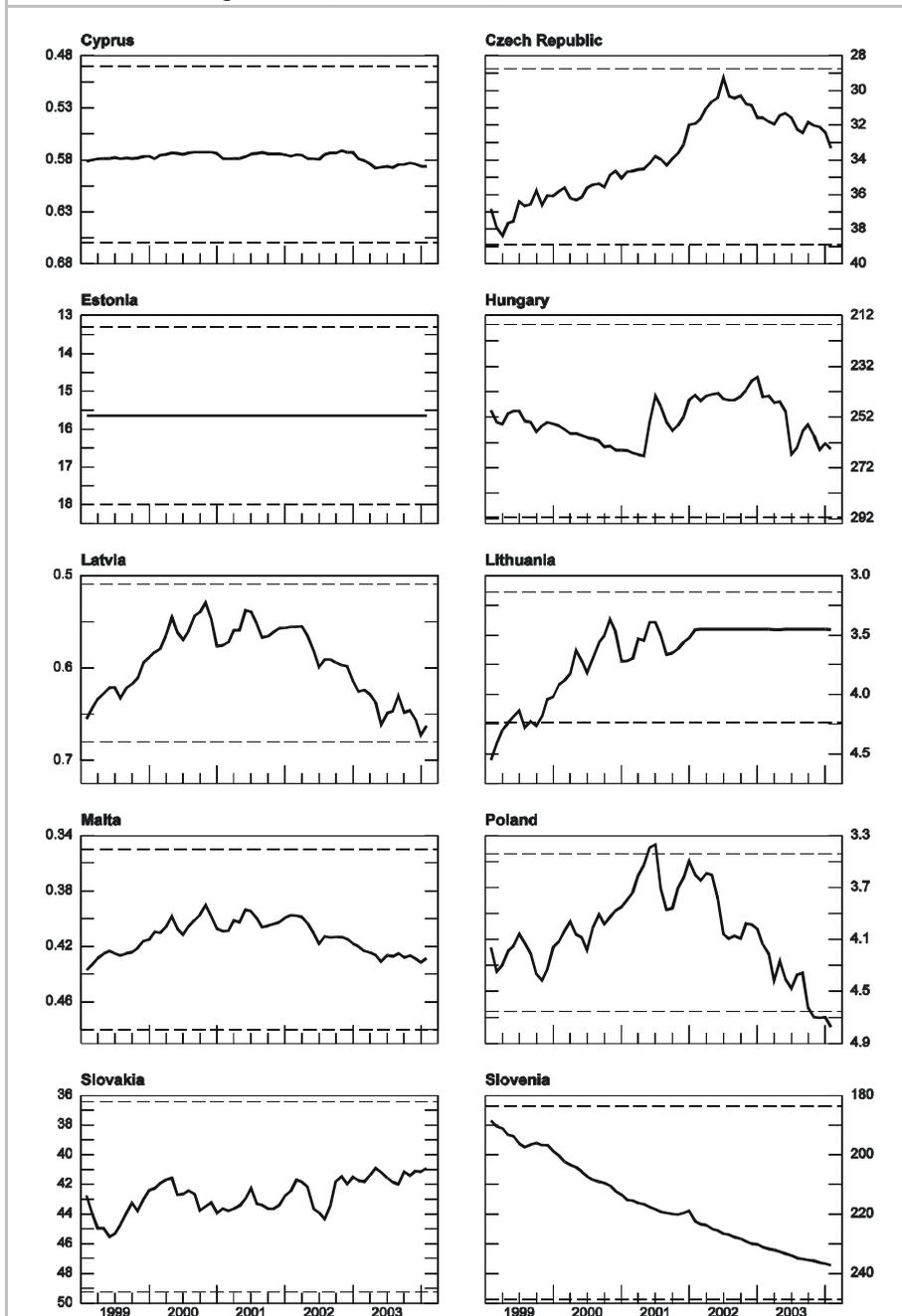


Note: ¹For accession countries, 1995–2003; for EMU members, 1994–99 (except Greece, 1996–2000).
Sources: IMF; author's estimates.



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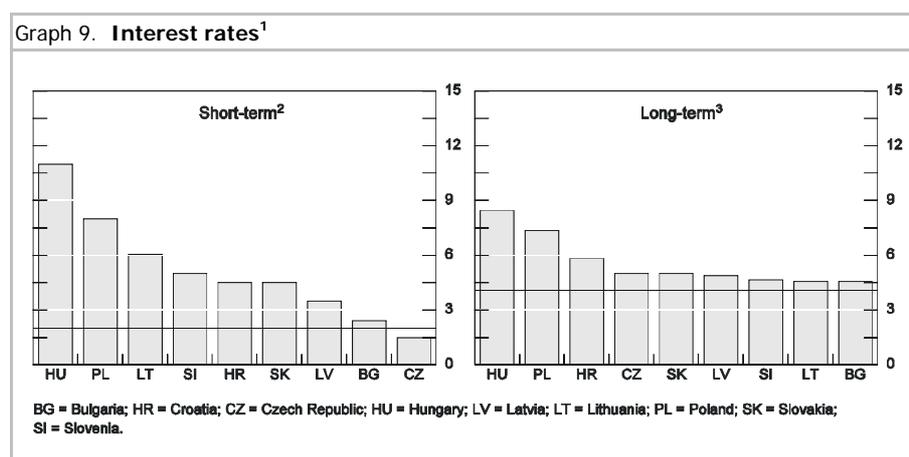
Graph 8. National currency per euro including +/-15% bands from average value¹ (inverted scales)



Note: ¹Average calculated over the period January 1999 to January 2004.
Sources: National data; ECB.

Despite large capital flows and a number of external and domestic shocks that have affected accession countries over the past few years, nominal exchange rates against the euro have not been excessively volatile. As Graph 8 shows, if central parities had been defined as the average daily exchange rate of domestic currency against the euro during 1999–2003, only the Lithuanian litas and the Polish zloty would have exceeded the normal fluctuation margins of $\pm 15\%$ around these parities: the litas during 1999 (the lower bound), and the zloty briefly in 2001 (the upper bound) and since late 2003 (the lower bound). One should recognise that on these occasions the central banks of Lithuania and Poland did not intervene, whereas in ERM II they would be involved, together with ECB (and possibly other central banks), in interventions at the margin. This provides at least some assurance that exchange rate volatility in ERM II might not be as high as is often feared.

It remains to be seen whether in the run-up to the adoption of the euro, in an environment of completely free capital flows, there could be significant profit opportunities, giving rise to short-term, potentially reversible, capital flows looking for more attractive returns. Although one cannot rule out this scenario, the fact that nominal convergence has progressed significantly in the acceding countries suggests that the remaining scope for such flows could be smaller than during the previous wave of monetary integration. In particular, Graph 9 shows that, by August 2004, both long-term bond rates and short-term policy rates have already converged to a considerable extent.



Notes: ¹In percent; data for August 2004 or latest available. ²Central bank policy rates; the horizontal line refers to the euro area rate. ³5 to 10-year domestic currency government bonds; the horizontal line refers to the 10-year German benchmark bond.
Sources: ECB; national data.

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